TRIM5 Protein, Human (His, B2M)

Cat. No.:	HY-P71637
Synonyms:	RING finger protein 88; RNF88; TRIM5; TRIM5_HUMAN; TRIM5alpha; Tripartite motif containing 5; tripartite motif protein TRIM5; Tripartite motif-containing protein 5
Species:	Human
Source:	E. coli
Accession:	Q9C035 (1M-493S)
Gene ID:	85363
Molecular Weight:	Approximately 70.3 kDa

PROPERTIES

AA Sequence	MASGILVNVK EEVTCPICLE LLTQPLSLDC GHSFCQACLT ANHKKSMLDK GESSCPVCRI SYQPENIRPN RHVANIVEKL REVKLSPEGQ KVDHCARHGE KLLLFCQEDG KVICWLCERS QEHRGHHTFL TEEVAREYQV KLQAALEMLR QKQQEAEELE ADIREEKASW KTQIQYDKTN VLADFEQLRD ILDWEESNEL QNLEKEEEDI LKSLTNSETE MVQQTQSLRE LISDLEHRLQ GSVMELLQGV DGVIKRTENV TLKKPETFPK NQRRVFRAPD LKGMLEVFRE LTDVRRYWVD VTVAPNNISC AVISEDKRQV SSPKPQIIYG ARGTRYQTFV NFNYCTGILG SQSITSGKHY WEVDVSKKTA WILGVCAGFQ PDAMCNIEKN ENYQPKYGYW VIGLEEGVKC SAFQDSSFHT PSVPFIVPLS VIICPDRVGV FLDYEACTVS FFNITNHGFL IYKFSHCSFS QPVFPYLNPR KCGVPMTLCS PSS
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	TRIM5 is a capsid-specific restriction factor that effectively prevents infection by non-host-adapted retroviruses. Its antiviral activity occurs early in the viral life cycle, specifically after viral entry but before reverse transcription. In addition to its role as a capsid-specific restriction factor, TRIM5 acts as a pattern recognition receptor, activating innate immune signaling in response to the retroviral capsid lattice. Upon binding to the viral capsid, TRIM5 triggers its E3 ubiquitin ligase activity. Teaming up with the UBE2V1-UBE2N complex, it generates 'Lys-63'-linked polyubiquitin chains, facilitating the autophosphorylation of the MAP3K7/TAK1 complex. The activated MAP3K7/TAK1 complex induces NF-kappa-B and MAPK-responsive inflammatory genes, instigating an innate immune response in the infected cell. TRIM5's versatility extends to restricting infections by various retroviruses, including N-tropic murine leukemia virus, equine infectious anemia virus, simian immunodeficiency virus of macaques, feline immunodeficiency virus, and bovine immunodeficiency virus. Moreover, TRIM5 plays a crucial role in regulating autophagy by activating autophagy regulator BECN1 and acting as a selective autophagy receptor, targeting HIV-1 capsid protein p24 for autophagic degradation.

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